

provided if possible. If, for any reason, this is not done, the investigator must find out where such systematic abstracts can be consulted, and, either by personal visitation or by hiring some one to examine them, discover what has been done.

It is a fair presumption, and one that ought always be made in the absence of knowledge to the contrary, that every subject has been worked at before by somebody, and no one is justified in publishing a piece of work until he has assured himself that what he is about to publish contains something worth setting forth.

Such a position as this does not preclude the publication of bulletins of information by the experiment stations, for a vast deal that is well known to specialists is not known at all to those whom it would directly benefit. It *does* preclude the publication of detailed experiments on ground already well trodden, unless these approach the matter in some new way or point to some different conclusions.

CURRENT LITERATURE.

Minor Notices.

PROFESSOR E. S. GOFF has prepared a paper on the Noxious Weeds of Wisconsin, which forms Bulletin 20 of the Agricultural Experiment Station.¹ It contains a copy of the weed law of the state, which requires the destruction of the following plants under penalties: *Cnicus arvensis*, *Arctium Lappa*, *Chrysanthemum Leucanthemum*, *Linaria vulgaris*, *Xanthium strumarium*, *Sonchus arvensis* and *Rumex crispus*. Descriptions and illustrations of all except *Sonchus arvensis* are accompanied by illustrations of several other bad weeds which are not included in the law.

NOTHING DOES MORE to stimulate study of any group of plants than providing beginners with suitable keys for the determination of the plants that they collect. Professor Underwood and Mr. Cook are about to issue a century of illustrative fungi, and they have prepared a series of keys to the genera of the Basidiomycetes and Myxomycetes to accompany the set.² These certainly must prove extremely helpful to those for whom they are intended. Of the specimens, fifty nine are Basidiomycetes, twenty-six Ascomycetes, eight Phycomycetes and seven Myxomycetes.

PROFESSOR BAILEY has been conducting a series of careful experiments on the germination of seeds, the results of which are embodied in

¹ Pp. 27, figs. 14. Published by the State.

² UNDERWOOD, L. M. and COOK, O. F.—Generic synopses of the Basidiomycetes and Myxomycetes. pp. 21. The authors, Syracuse, 1889.

Bulletin 7 of the Cornell Experiment Station.³ His conclusions as to the relative influence of constant and variable temperature on sprouting seem to us invalid on account of his apparent failure to take account of the limits of temperature for the germination of the various species of seeds used. His conclusions are essentially those of Köppen (1870), and are open to the same objections. They are contradicted by those of Pedersen⁴ who found that when the temperature variations were confined to certain limits the growth seemed to be greater rather than less. His further experiments, however, showed that the temperature variations *as such* exercised no influence.

The most remarkable results are those regarding the influence of the amount of moisture on sprouting. A much larger percentage of seed germinated when the soil was kept drier than usual in greenhouses. In some cases the difference amounted to nearly fifty per cent. The best results were obtained when the soil was kept merely moist.

The other results regarding the influence of soaking before planting, soil, color, latitude, etc., are unimportant. The conclusions as to influence of weight and light accord with those of other earlier observers. Perhaps the most important feature of the bulletin is the insistence of the author upon the inadequacy both of limited testing and field planting to determine the quality of seeds, points that his researches abundantly confirm.

OPEN LETTERS.

Some Nebraska grasses.

Nebraska furnishes a new locality for two grasses which are attributed to the far southwest. *Melica Porteri* Scrib., credited from Colorado to Arizona, was collected in 1887 at Weeping Water, about thirty-five miles east of here, and within fifteen miles of the Missouri river. The second and more interesting find is *Eragrostis pilifera* Scheele, at Valentine, just west of the 100th meridian and at the extreme northern border of the state. Vasey's catalogue says it belongs down in Texas and Arizona. What is it doing way up here? *E. pilifera* seems more like either *Molinia* or *Catabrosa* than *Eragrostis*. The spikelets are 2-4 flowered. In a three-flowered spikelet, the lower flower is hermaphrodite, the second male, and the third sterile, with sometimes a pedicel projecting beyond it. If *E. pilifera* is to be considered as a true *Eragrostis*, *Molinia* should also be made a section of that genus.—JARED G. SMITH, *Lincoln, Neb.*

³ BAILEY, L. H.—On the influence of certain conditions upon the sprouting of seeds. pp. 31-71, figs. 7. Ithaca, the University, July, 1889.

⁴ Arbeiten bot. Inst. Würzburg, i. 563.